

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

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TOOLS AVIATION, LLC,

Plaintiff,

- against -

MEMORANDUM & ORDER
20-CV-2651 (PKC) (VMS)

DIGITAL PAVILION ELECTRONICS
LLC, EAST BROOKLYN LABS LLC,
and FIREMALL LLC,

Defendants.

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PAMELA K. CHEN, United States District Judge:

In this lawsuit, Plaintiff Tools Aviation, LLC has sued Defendants Digital Pavilion Electronics LLC (“Digital”), East Brooklyn Labs LLC (“East Brooklyn”), and Firemall LLC (“Firemall”) (collectively, “Defendants”), for selling “battery caddies” in violation of three of Plaintiff’s patents. On April 6, 2021, the parties submitted a list of terms in the patents with disputed meanings. The parties briefed their respective proposed constructions of these terms, and the Court held a claim construction hearing on June 28, 2021. For the reasons discussed below, the Court adopts the following constructions of the two remaining disputed terms:

- **Bottom wall:** A rigid structure at the bottom end of a battery compartment at least partially closing the bottom end of the compartment to prevent a battery from falling through the bottom end of the compartment.
- **Protrusion into each compartment:** A structure that protrudes from a compartment sidewall into a compartment.

BACKGROUND

I. Factual Background

Plaintiff makes and sells a “battery caddy” under the trademarks Storacell® and Powerpax® (the “Storacell®” device) (*see* Complaint (“*Compl.*”), Dkt. 1, ¶ 21), pictured below:



(see Dkt. 39, at 2; see also STORACELL BATTERY MANAGEMENT, *AA – 12 Packs*, <https://storacell.net/products/aa-packs/#single/0> (last visited Sept. 17, 2021)).

Plaintiff designed the Storacell® for pilots to store and dispense batteries in emergencies. (See Compl., Dkt. 1, ¶ 22.) The Storacell® also can provide a convenient battery storage method for use in homes, cars, offices, and shops. (*Id.*)

On October 30, 2007, the United States Patent and Trademark Office (“PTO”) issued U.S. Patent No. 7,287,648 to Plaintiff, entitled “Battery Holder and Dispenser.” (See U.S. Patent No. 7,287,648 (“Patent ‘648”), Dkt. 1-1.) On September 18, 2012, the PTO issued U.S. Patent No. 8,267,252 to Plaintiff, entitled “Battery Holder and Dispensing Package.” (See U.S. Patent No. 8,267,252 (“Patent ‘252”), Dkt. 1-2.) On May 5, 2015, the PTO issued U.S. Patent No. 9,022,218 to Plaintiff, also entitled “Battery Holder and Dispensing Package.” (See U.S. Patent No. 9,022,218 (“Patent ‘218”), Dkt. 1-3.)

Sometime before October 16, 2019, Defendants began selling the “RadCad Battery Charger and Caddy for AA Rechargeable Batteries” (“RadCad”) and the “East Brooklyn Labs Durable AA Battery Storage” (“RadCad Caddy”) (Compl., Dkt. 1, ¶ 25), pictured below:



(see Dkt. 1-16 (annotations removed); see also AMAZON, *RadCad Battery Charger and Caddy for AA Rechargeable Batteries*, https://www.amazon.com/dp/B07N8KGBPV?ref=vse_pfo_vdp (last visited Sept. 17, 2021)).

II. Procedural Background

On October 17, 2019, Defendant Digital received a complaint notice from Amazon.com (“Amazon”), indicating that Defendants’ sales of the RadCad had infringed on two of Plaintiff’s patents. (Third Amended Answer (“TAA”), Dkt. 24, ¶¶ 118.) The complaint had been filed by

Shawnta Mateja, daughter of Richard Foreman, Plaintiff’s president. (*Id.* ¶¶ 118, 121.) Digital responded to Amazon and Ms. Mateja via letter that it was not infringing. (*Id.* ¶ 119.) Ms. Mateja filed another complaint with Amazon, and Digital again responded that it was not infringing. (*Id.* ¶ 120.) An attorney for Plaintiff then wrote to counsel for Defendants, asserting that Defendants Digital and East Brooklyn had infringed on all three of Plaintiff’s patents. (*Id.* ¶ 122.) The parties continued to disagree in correspondence over whether there had been infringement. (*Id.* ¶¶ 122–125.)

On June 15, 2020, Plaintiff filed the complaint in the instant action, claiming that Defendants sell battery caddies in violation of Plaintiff’s Patents ‘648, ‘252, and ‘218. (*See* Compl., Dkt. 1; TAA, Dkt. 24, ¶ 126.) On August 26, 2020, Defendant Digital sued Plaintiff in this Court, under docket number 20-CV-3975 (PKC) (VMS) (the “Digital Pavilion Action”), alleging tortious interference with Digital’s business and seeking a declaratory judgment of non-infringement of the patents in Plaintiff’s complaint. (*See* Complaint, 20-CV-3975 (PKC) (VMS) (E.D.N.Y. Aug. 26, 2020), ECF No. 1.)

On September 23, 2020, Defendants filed an answer in the instant action. (Dkt. 9.) The following day, Defendants filed an Amended Answer, and Defendant Digital voluntarily dismissed the Digital Pavilion Action. (*See* Amended Answer, Dkt. 13; Notice of Voluntary Dismissal, No. 20-CV-3975 (PKC) (VMS), ECF 10.) The Amended Answer asserted a counterclaim mirroring the causes of action that Digital had asserted in the Digital Pavilion Action, namely, a declaratory judgment for patent non-infringement and tortious interference. (*Compare* Amended Answer, Dkt. 13, ¶¶ 131–140, *with* Complaint, No. 20-CV-3975 (PKC) (VMS), ECF 1, ¶¶ 21–32.)

On October 15, 2020, Plaintiff filed a request for a pre-motion conference in advance of a motion to dismiss Defendants’ counterclaim. (Motion for a Pre-Motion Conference, Dkt. 17.)

Defendants responded on October 20, 2020, and agreed to dismiss the non-infringement declaratory judgment portion of Defendants' counterclaim. (Defendants' Response to the Request for a Pre-Motion Conference ("Def. Rep."), Dkt. 19, at 2.) On October 26, 2020, the Court construed the pre-motion conference letter as a motion to dismiss the counterclaim and ordered supplemental briefing. (10/26/20 Docket Order.) Defendants filed a Second Amended Answer later that day, and a Corrected Second Amended Answer the following day. (Dkts. 20, 22.) On November 3, 2020, Defendants filed the TAA, which is now the operative answer. (TAA, Dkt. 24.)¹

III. Claim Construction Background

On October 14, 2020, the Honorable Vera M. Scanlon, Magistrate Judge, directed the parties to "exchange proposed claim terms for construction by 1/15/2021"; "exchange proposed claim constructions by 2/23/2021"; "meet and confer regarding proposed claim construction by 3/23/2021"; "file a Joint Disputed Claim Terms Chart (Local Patent Rule 11) on 4/6/2021"; "file simultaneous opening claim construction briefs (Local Patent Rule 12(a)) on 5/6/2021";² and "file simultaneous opposition claim construction briefs (Local Patent Rule 12(b)) [by] 6/5/2021." (10/14/2020 Scheduling Order.) The same day, the Court scheduled a claim construction hearing for June 16, 2021. (10/14/2021 Docket Order.)

¹ The TAA also included a counterclaim for tortious interference. (TAA, Dkt. 24, ¶¶ 135–40.) On September 23, 2021, the Court dismissed that counterclaim as preempted by federal patent law. (See Dkt. 51 at 9 ("Federal patent law [] preempts state-law tort liability when a patentee in good faith communicates allegations of infringement of its patent." (quoting *Dominant Semiconductors Sdn. Bhd. v. OSRAM GmbH*, 524 F.3d 1254, 1260 (Fed. Cir. 2008)).)

² Under this district's Local Patent Rule 12(a), "the party asserting infringement" must "serve and file an opening claim construction brief and all supporting evidence and testimony" within "thirty (30) days after filing of the Joint Disputed Claim Terms Chart."

As discussed, on April 6, 2021, the parties filed a Joint Disputed Claim Terms Chart disputing the definitions of various terms in the three patents. (Joint Disputed Claim Terms Chart (“Disputed Terms Chart”), Dkt. 36-1.) On May 6, 2021 the parties filed their simultaneous opening claim construction briefs.³ (See Defendants’ Opening Claim Construction Memorandum (“Def. Br.”), Dkt. 37; Pl. Br., Dkt. 39.) On June 14, 2021, the parties filed simultaneous reply claim construction briefs. (See Defendants’ Reply Memorandum (“Def. Reply”), Dkt. 42; Plaintiff’s Reply Memorandum (“Pl. Reply”), Dkt. 43.) On June 28, 2021, the Court held a claim construction hearing. (See 6/28/2021 Minute Entry.) On July 28, 2021, the parties filed supplemental claim construction briefs. (See Defendants’ Supplemental Claim Construction Memorandum (“Def. Supp.”), Dkt. 45; Plaintiff’s Supplemental Claim Construction Memorandum (“Pl. Supp.”), Dkt. 46.)

In their Disputed Terms Chart, the parties disputed the following terms:

Patent 648	(1) First frame (Claims 12, 13, 17, 18, 20, 21, 22, 26, 28) (2) Bottom wall (Claims 12, 13, 17, 18, 20, 21, 22, 26, 28) (3) Open area (Claims 12, 13, 17, 18, 20, 21, 22, 26, 28) (4) Detent protruding into an open end (Claim 13)
Patent 252	(1) First frame (Claims 1, 2, 5, 6, 7, 11, 12, 13, 24, 25, 29, 30, 31) (2) Bottom wall (Claims 1, 2, 5, 6, 7, 11, 12, 13, 24, 25, 29, 30, 31) (3) Detent (Claims 1, 2, 5, 6, 7, 11, 12, 13) (4) Detent protruding into a respective open end (Claims 1, 2, 5, 6, 7, 11, 12, 13) (5) Protrusion into each compartment (Claims 24, 25, 29, 30, 31)
Patent 218	(1) First frame (Claims 1, 2, 5, 6, 9, 10, 11, 13, 14) (2) Bottom wall (Claims 1, 2, 5, 6, 9, 10, 11, 13, 14) (3) Retaining element (Claims 1, 2, 5, 6, 9, 10, 11, 13, 14) (4) Open area (Claims 1, 2, 5, 6, 9, 10, 11) (5) Detent protruding into an open end (Claims 13, 14)

(See generally Disputed Terms Chart, Dkt. 36-1.)

³ Plaintiff refiled its Opening Brief on May 7, 2021, apparently due to a filing error on May 6, 2021. For unrelated reasons, Defendants moved to strike Plaintiff’s Opening Brief. (Dkt. 40.) The Court held a hearing on the motion to strike and denied it. (See 5/27/2021 Minute Entry.)

During the course of the claim construction litigation, however, the parties reduced their dispute to the following terms:

Patent 648	(1) Bottom wall (Claims 12, 13, 17, 18, 20, 21, 22, 26, 28)
Patent 252	(1) Bottom wall (Claims 1, 2, 5, 6, 7, 11, 12, 13, 24, 25, 29, 30, 31) (2) Protrusion into each compartment (Claims 24, 25, 29, 30, 31)
Patent 218	(1) Bottom wall (Claims 1, 2, 5, 6, 9, 10, 11, 13, 14)

(See Def. Supp., Dkt. 45, at 1–2 (noting that Digital has accepted Plaintiff’s constructions of all disputed terms except “bottom wall” and “protrusion”).)

CLAIM TERMS

Patent ‘648 contains two independent claims (Claims 1 and 12). Patent ‘252 contains three independent claims (Claims 1, 24, and 32). Patent ‘218 contains three independent claims (Claims 1, 13, and 17).

Claim 1 of the ‘648 Patent discloses:

1. A battery holding and dispensing apparatus, comprising:

- a first frame, sized and configured to be held and supported in a user’s hand, said first frame including a plurality of first compartments, each first compartment sized and configured to hold a battery, each first compartment including an open end and a detent protruding into said open end to overlie a portion of a battery held therein, said detent resiliently displaceable from said open end to allow removal of said battery from said first compartment through said open end; and
- a second frame, said second frame including a plurality of second compartments, each second compartment sized and configured to hold a battery, each second compartment including a means for releasably holding a battery within the second compartment; wherein said first frame and said second frame are releasably interconnected together.

(‘648 Patent col. 8 ll. 18–35.)

Claim 12 of the ‘648 Patent discloses:

- 12. A battery holding and dispensing apparatus for holding and dispensing elongated cylindrical batteries, comprising:

a first frame, said first frame, sized and configured to be held and supported in a user's hand, and including a plurality of compartments, each compartment having sidewalls to hold the batteries with longitudinal axes of the batteries in an upright orientation, wherein said compartments each comprise a bottom wall having an open area exposing a bottom portion of a battery within said compartment wherein a user can touch with a finger a bottom edge of the battery held in the compartment through the open area, each sidewall defining an end opening sized to allow removal of a battery from within said compartment wherein said compartments are arranged to hold said batteries oriented side-by-side in parallel and wherein a user can at least partially remove a battery through said end opening by pushing the battery with the finger moved through the open area.

(‘648 Patent col. 9 ll. 26–45 (emphasis on disputed terms added).)

Claim 1 of the ‘252 Patent discloses:

1. In combination a battery holding and dispensing apparatus for holding and dispensing household batteries, and a plurality of batteries each having a first end and opposite, second end and a lengthwise body between the first and second ends with an electrical terminal provided on the first end or both ends, with the body being free of electrical terminals the battery having a lengthwise centerline oriented to intersect centers of the first and second ends, the battery holding and dispensing apparatus comprising:

a first frame including a plurality of compartments, each compartment sized and configured to hold one of said plurality of batteries and having a bottom wall, an open end, and a surrounding sidewall defining a space within the compartment between the open end and the bottom wall and a compartment centerline oriented to intersect a center of the open end and centered in the space defined by the surrounding sidewall the compartment centerline being collinear with the lengthwise centerline of the battery when inserted into the compartment through the open end, each said surrounding sidewall sized to have a length along said respective compartment centerline that is equal to or greater than a length of a corresponding battery along said battery centerline such that the battery fits in the compartment, said first frame composed of molded plastic; and

a plurality of detents, one detent protruding into a respective open end of each said compartment in order to retain a battery in said compartment, each detent resiliently displaceable from the respective open end to allow removal of the battery from the respective compartment through the respective open end, each detent being composed of molded plastic and formed in unitary fashion with the first frame.

(Patent ‘252, col. 12 l. 49–col. 13 l. 14 (emphasis on disputed terms added).)

Claim 24 of the ‘252 Patent discloses:

24. In combination, a battery holding and dispensing apparatus for holding and dispensing household batteries, a plurality of batteries, each having a first end, an opposite second end and a lengthwise body between the first and second ends with an electrical terminal provided on the first end or both ends with the body being free of electrical terminals, the battery having a lengthwise centerline oriented to intersect centers of the first and second ends, the battery holding and dispensing apparatus comprising:

a first frame including a plurality of compartments, each compartment sized to contain one battery of said plurality of batteries therein and having a sidewall to hold said one battery with longitudinal centerline of the one battery in the compartment held in an upright orientation, each sidewall having an opening wherein a user can touch with a finger the one battery held in the compartment through the opening to ascertain a battery size, and the compartment having a top opening for dispensing of the one battery in a direction parallel to the lengthwise centerline of the one battery,

the first frame being composed of a unitary injection molded plastic and having a protrusion into each compartment to retain a battery therein.

(Patent '252 col. 14 ll. 23–45 (emphasis on disputed terms added).)

Claim 32 of the '252 Patent discloses:

32. In combination, a battery holding and dispensing apparatus for holding and dispensing household batteries, a plurality of batteries each having a first end, an opposite second end and a lengthwise body between the first and second ends with an electrical terminal provided on the first end or both ends with the body being free of electrical terminals, the battery having a lengthwise centerline oriented to intersect centers of the first and second ends, the battery holding and dispensing apparatus comprising:

a first rigid plastic frame, said first rigid frame including a plurality of compartments, each compartment having a first wall thickness and sized and configured to hold a single battery of said plurality of batteries completely therein and separated from the respective other compartments, each compartment including a top opening and a bottom opening, said bottom opening allowing a user to push said single battery with a finger toward said top opening, the compartments each having a compartment vertical centerline intersecting a center of the top opening, the compartment vertical centerline is aligned with the single battery lengthwise centerline such that the single battery is pushed through the compartment in a direction parallel to the battery lengthwise centerline, the compartment vertical centerlines in the rigid plastic frame all being parallel; and

a first membrane covering said top opening said first membrane having a second wall thickness that allows said first membrane to tear, or the connection between

the first membrane and the first frame has a strength to allow the first membrane to break away from said frame when sufficient force by the user's finger pushes the single battery through or past the first membrane, said first wall thickness being thicker than said second wall thickness.

(Patent '252, col. 15 l. 1–col. 16 l. 28.)

Claim 1 of the '218 Patent discloses:

1. A battery holding and dispensing apparatus, comprising:

a first frame including a plurality of compartments, each compartment sized and configured to closely conform to the shape and size of the outside perimeter of a standard battery selected from at least one of standard battery sizes AAA, AA, C and 9V, in order to hold the standard battery snugly within the compartment, and having an open end for dispensing the standard battery out of the compartment, said first frame composed of rigid molded plastic;

each compartment configured for releasably retaining the standard battery within the compartment; and

wherein said compartments each comprise a retaining element, a bottom wall and an open area adjacent to the bottom wall exposing a bottom wall portion of the standard battery within said compartment wherein a user can touch with a finger the bottom wall portion of the standard battery held in the compartment through the open area and wherein a user can move the standard battery away from said bottom wall of the compartment by a finger pushing against the bottom wall portion of the standard battery within the open area, wherein the standard battery is retained between said bottom wall and said retaining element, said retaining element located adjacent to said open end and wherein movement of the standard battery by force from the user's finger on the bottom wall portion of the standard battery allows removal of a portion of the standard battery from said compartment through said open end when said retaining element is disengaged from the standard battery by force from the standard battery;

wherein each compartment has a longest axial dimension extending between the bottom wall and the open end corresponding to a length of the battery held therein;

wherein said retaining element in each compartment comprises a detent protruding into an end opening defined by the open end of each said compartment, said detent resiliently displaceable from said end opening to allow removal of the standard battery from each of said compartments through said open end.

(Patent '218, 12:52–13:25 (emphasis on disputed terms added).)

Claim 13 of the '218 Patent discloses:

13. A battery containing and dispensing apparatus for containing and dispensing elongated batteries, comprising:

a first frame, said first frame including a plurality of compartments, the compartments having sidewalls to contain standard batteries selected from at least one of standard battery sizes AAA, AA, C and 9V with longitudinal axes of the batteries in an upright orientation, each sidewall having an opening wherein a user can touch with a finger the battery held in the compartment through the opening to ascertain a battery size and each compartment comprises a retaining element, a bottom wall and an open end defining an end opening for dispensing the standard battery from each compartment;

wherein the standard battery is retained between said bottom wall and said retaining element, said retaining element located adjacent to said open end and wherein movement of the standard battery by force from the user's finger on the standard battery allows removal of a portion of the standard battery from said compartment through said open end when said retaining element is disengaged from the standard battery by force from the standard battery;

wherein each compartment has a longest axial dimension extending between the bottom wall and the open end corresponding to a length of the battery held therein;

wherein said retaining element in each compartment comprises a detent protruding into an end opening defined by the open end of each said compartment, said detent resiliently displaceable from said end opening to allow removal of the standard battery from each of said compartments through said open end.

(Patent '218, 14:3–35 (emphasis on disputed terms added).)

Claim 17 of the '218 Patent discloses:

A battery holding and dispensing apparatus comprising:

a first frame including a plurality of compartments, each compartment sized and configured to closely conform to the shape and size of the outside perimeter of a standard battery selected from at least one of standard battery sizes AAA, AA, C and 9V, in order to hold the standard battery snugly within the compartment, and having an open end for dispensing the standard battery out of the compartment said first frame composed of rigid molded plastic;

each compartment configured for releasably retaining the standard battery within the compartment; and

wherein said compartments each comprise a retaining element a bottom wall and an open area adjacent to the bottom wall exposing a bottom wall portion of the standard battery within said compartment wherein a user can touch with a finger

the bottom wall portion of the standard battery held in the compartment through the open area, and wherein a user can move the standard battery away from said bottom wall of the compartment by a finger pushing against the bottom wall portion of the standard battery within the open area, wherein the standard battery is contained between said bottom wall and said retaining element, said retaining element located adjacent to said open end and wherein movement of the standard battery by force from the user's finger on the bottom wall portion of the standard battery allows removal of a portion of the standard battery from said compartment through said open end when said retaining element is disengaged from the standard battery by force from the standard battery;

wherein the retaining element comprises:

a first membrane covering said open end said first membrane having a thickness that allows said first membrane to tear, or the connection between the first membrane and the first frame has a strength to allow the first membrane to break away from said frame, when sufficient force by the user's finger pushes the standard battery through or past the first membrane.

(Patent '218, 14:46–15:18 (emphasis on disputed terms added).)

LEGAL STANDARD

Under *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372, (1996), “the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.” Thus, “when the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.” *Eon Corp. IP Holdings v. Silver Spring Networks*, 815 F.3d 1314, 1318 (Fed. Cir. 2016) (quotations omitted). The court is “not bound by the parties’ arguments as to claim construction.” *Sony Corp. v. Iancu*, 924 F.3d 1235, 1240 (Fed. Cir. 2019); *see also Exxon Chem. Pats., Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995) (“[T]he trial judge has an independent obligation to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties.”).

“[C]laims terms are generally given their ordinary and customary meaning” *Eon*, 815 F.3d at 1320. “The ordinary meaning of a claim term is not the meaning of the term in the abstract.” *Id.* (citations and quotations omitted). “Instead, the ‘ordinary meaning’ of a claim term is its

meaning to the ordinary artisan after reading the entire patent.” *Id.* (citations and quotations omitted).⁴

“There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citation omitted). “To act as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning.” *Id.* (quotations omitted). “The standard for disavowal of claim scope is similarly exacting.” *Id.* at 1366 (quotations omitted). “Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.” *Id.* (quotations omitted); *see also Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003) (“The written description must be examined in every case, because it is relevant not only to aid in the claim construction analysis, but also to determine if the presumption of ordinary and customary meaning is rebutted.” (citation omitted)).

“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc) (citation omitted); *see also*

⁴ A court also “may rely on dictionary definitions, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.” *Tr. ’s of Columbia Univ. in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1363 (Fed. Cir. 2016) (citation and quotations omitted).

ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc., 694 F.3d 1312, 1326 (Fed. Cir. 2012) (“The district court did not err in concluding that these terms have plain meanings that do not require additional construction.”). “In many cases that give rise to litigation, however, determining the ordinary and customary meaning of the claim requires examination of terms that have a particular meaning in a field of art.” *Phillips*, 415 F.3d at 1314. Similarly, “[a] determination that a claim term ‘needs no construction’ or has the ‘plain and ordinary meaning’ may be inadequate when a term has more than one ‘ordinary’ meaning or when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008). In *Eon*, for example, “the [district] court did not resolve the parties’ dispute by instructing the jury that the claims should be given their plain and ordinary meaning,” because the terms were susceptible to “more than one ordinary meaning” and “the parties actively disputed the scope of the [] terms.” 815 F.3d at 1319.

In construing terms with disputed meanings, a court must consider the “context of the patent” and “look[] to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.” *Phillips*, 415 F.3d at 1314 (quotations omitted). “Those sources include the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.* (quotations omitted).

I. Claim Language

“In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.” *Braintree Lab’ys, Inc. v. Novel Lab’ys, Inc.*, 749 F.3d 1349, 1354–55 (Fed. Cir. 2014) (quotation and alteration omitted); *see also Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed.

Cir. 1998) (“The appropriate starting point . . . is always with the language of the asserted claim itself.” (citation omitted)). “While certain terms may be at the center of the claim construction debate, the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms.” *Brookhill-Wilk I*, 334 F.3d at 1299 (citation omitted).

“[C]laims are interpreted with an eye toward giving effect to all terms in the claim.” *See Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) (citation omitted). In *Digital-Vending Services International, LLC v. University of Phoenix, Inc.*, 672 F.3d 1270, 1275 (Fed. Cir. 2012), for example, the Federal Circuit reversed the district court’s redundant construction of the claim term “registration server,” as a server “free of content managed by the architecture,” because the disputed claim already described a “registration server” as “being further characterized in that it is free of content managed by the architecture.” The Court explained that “[i]f ‘registration server’ were construed to inherently contain the ‘free of content managed by the architecture’ characteristic, the additional ‘each registration server being further characterized in that it is free of content managed by the architecture’ language in many of the asserted claims would be superfluous.” *Id.*

A similar superfluity issue arose in *Enthone Inc. v. BASF Corp.*, where the disputed claim disclosed “a polyether **suppressor** compound comprising a combination of [various chemical properties].” No. 15-CV-233 (TJM) (DEP), 2016 WL 6679493, at *4 (N.D.N.Y. June 17, 2016), *report and recommendation adopted*, 2016 WL 4257355 (N.D.N.Y. Aug. 11, 2016) (emphasis in original). Using essentially identical language, the defendant “propose[d] that the term ‘suppressor’ be construed to mean ‘a compound comprising a combination of [those chemical properties].” *Id.* at *6. The court rejected this proposed construction as superfluous, because

adopting it would result in the disputed claim effectively disclosing “*a compound comprising a combination of [various chemical properties]* comprising a combination of [those chemical properties].” *Id.* (citation omitted). *See also Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1304 (Fed. Cir. 2007) (“The fact that [certain] functions are mentioned separately when a ‘server’ is mentioned in the claims weighs against limiting a ‘server’ to one that performs the functions.”).

Finally, “[t]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Knowles Elecs. LLC v. Iancu*, 886 F.3d 1369, 1375 (Fed. Cir. 2018) (brackets omitted) (quoting *Phillips*, 415 F.3d at 1315). “[T]hat presumption can be overcome if the circumstances suggest a different explanation, or if the evidence favoring a different claim construction is strong” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004).

II. Specification

“Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313. “The importance of the specification in claim construction derives from its statutory role.” *Id.* at 1316. “The close kinship between the written description and the claims is enforced by the statutory requirement that the specification describe the claimed invention in ‘full, clear, concise, and exact terms.’” *Id.* (quoting 35 U.S.C. § 112).

Although “claims are to be interpreted in light of the specification,” “limitations from the specification are not to be read into the claims.” *Comark*, 156 F.3d at 1186 (quotations omitted). There is a “fine line between reading claims *in light* of the written description, and importing limitations from the written description.” *Howmedica Osteonics Corp. v. Zimmer, Inc.*, 822 F.3d

1312, 1322 (Fed. Cir. 2016). “Even when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Medrad*, 358 F.3d at 906 (quotations omitted).

Likewise, “claims are not limited to preferred embodiments” identified in the specification “unless the specification clearly indicates otherwise.” *WesternGeco LLC v. ION Geophysical Corp.*, 889 F.3d 1308, 1323–24 (Fed. Cir. 2018) (citation omitted). The specification’s identification of a “preferred” embodiment thus can undermine the interpretation that the disputed claim term necessarily includes the features of that embodiment. *See Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008) (“[T]he specification states that ‘preferably’ none of these clays are added; this strongly suggests that absence of clays is simply a preferred embodiment.”); *see also Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1357 (Fed. Cir. 2003) (“[U]se of the term ‘preferably’ makes clear that the language describes a preferred embodiment, not the invention as a whole.”).

At the same time, “where claims can reasonably be interpreted to include a specific embodiment, it is incorrect to construe the claims to exclude that embodiment, absent probative evidence to the contrary.” *SIMO Holdings Inc. v. Hong Kong uCloudlink Network Tech. Ltd.*, 983 F.3d 1367, 1378 (Fed. Cir. 2021) (citation, brackets, and emphasis omitted). Thus, “[a] claim construction that does not encompass a disclosed embodiment is rarely, if ever, correct.” *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1320 (Fed. Cir. 2005) (quotations and alteration omitted). A court should reject a proposed construction that “would improperly read [one of the] embodiment[s] [described in the specification] out of the patent.” *See Knowles*, 886 F.3d at 1375 (citation omitted).

III. Prosecution History

“In addition to consulting the specification, . . . a court should also consider the patent’s prosecution history, if it is in evidence.” *Phillips*, 415 F.3d at 1317 (citation and quotations omitted). “The prosecution history . . . consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent.” *Id.* (citation omitted). “Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent.” *Id.* “[T]o disavow claim scope during prosecution a patent applicant must clearly and unambiguously express surrender of subject matter.” *Voda v. Cordis Corp.*, 536 F.3d 1311, 1321 (Fed. Cir. 2008) (citation and quotations omitted).

DISCUSSION

As noted, the parties dispute the following terms:

Patent 648	(1) Bottom wall (Claims 12, 13, 17, 18, 20, 21, 22, 26, 28)
Patent 252	(1) Bottom wall (Claims 1, 2, 5, 6, 7, 11, 12, 13, 24, 25, 29, 30, 31) (2) Protrusion into each compartment (Claims 24, 25, 29, 30, 31)
Patent 218	(1) Bottom wall (Claims 1, 2, 5, 6, 9, 10, 11, 13, 14)

(See Def. Supp., Dkt. 45, at 1–2 (noting that Defendants have accepted Plaintiff’s constructions of all disputed terms except “bottom wall” and “protrusion”).) The Court thus considers the terms (I) “bottom wall” and (II) “protrusion into each compartment.”

I. “Bottom Wall”

The parties first dispute the meaning of the term “bottom wall” in Claims 12, 13, 17, 18, 20, 21, 22, 26, and 28 of the ‘648 Patent; Claims 1, 2, 5, 6, 7, 11, 12, 13, 24, 25, 29, 30, and 31 of the ‘252 Patent; and Claims 1, 2, 5, 6, 9, 10, 11, 13, and 14 of the ‘218 Patent. The independent claims are: Claim 12 of the ‘648 Patent, 1 of the ‘252 Patent, and 1 and 13 of the ‘218 Patent.

- Plaintiff recommends that the Court construe “bottom wall” to mean “[a] structure at the end of the compartment opposite an end opening at least partially closing the compartment.” (*See* Disputed Terms Chart, Dkt. 36-1, at 2, 5, 10.)
- Defendants recommend that the Court construe “bottom wall” to mean “[a]n integral portion of the frame positioned to close at least partially, the bottom ends of a plurality of the cylindrical battery compartments to prevent batteries in the plurality of compartments from falling out.” (*Id.*)

The parties’ primary disagreements thus are whether the bottom wall is (1) integral to the frame, and (2) intended to prevent batteries from falling out of the compartments.

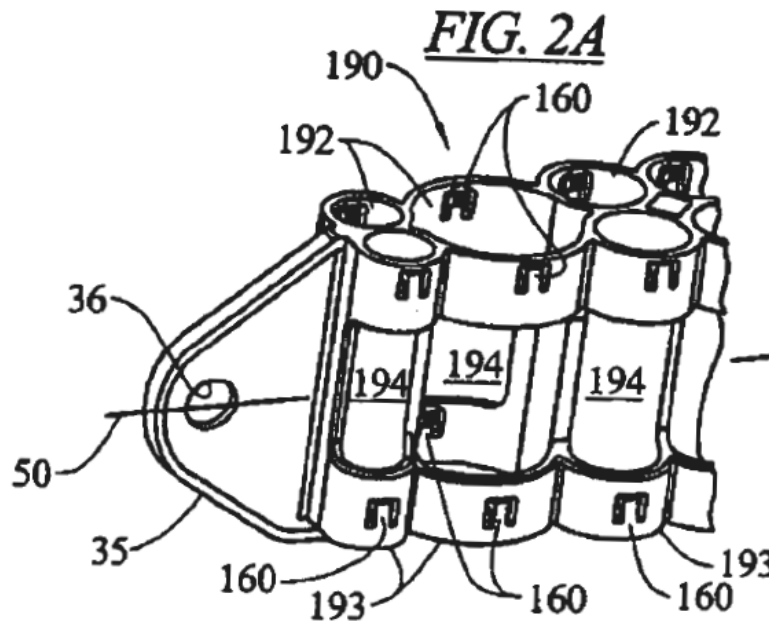
A. The “Bottom Wall” Is Not Inherently An “Integral Portion of the Frame”

The Court declines to adopt Defendants’ definition of “bottom wall” as “[a]n integral portion of the frame.” This proposed construction, in reality, asks the Court to construe the term “frame” as necessarily including a bottom wall. That is, if a bottom wall is integral—*i.e.*, essential—to the frame, the frame necessarily includes a bottom wall. *See Integral*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/integral> (last visited Dec. 15, 2021) (defining “integral” as “essential to completeness”). Defendants thus ask the Court to find that a “frame,” by definition, has a bottom wall. The patents foreclose this reading.

First, at least one unasserted claim describes a “frame” that need not include a bottom wall. For example, Claim 32 of the ‘252 Patent describes an embodiment of the device where the “frame” includes compartments, with “each compartment including a top opening and a bottom opening.” (Patent ‘252, col. 15 ll. 15–16.) Dependent Claims 34–36 describe a version of the Claim 32 embodiment where the top opening and bottom opening are covered by “breakable membranes” such that users can push batteries through either the top *or bottom* openings. (*See id.* col. 16 ll. 15–22.) This embodiment would be impossible if, as Defendants contend, a bottom wall were integral to the frame—*i.e.*, if a frame necessarily includes a bottom wall. As noted, “[a] claim

construction that does not encompass a disclosed embodiment is rarely, if ever, correct.” *Medrad*, 401 F.3d at 1320 (alteration omitted).⁵

Second, Figure 2A in the specifications for all three Patents depicts a frame without a bottom wall:



⁵ That Claim 32 of the ‘252 Patent is unasserted does not change this analysis. First, “[o]ther claims of the patent in question, both asserted *and unasserted*, can also be valuable sources of enlightenment as to the meaning of a claim term.” *Phillips*, 415 F.3d at 1314 (emphasis added) (citation omitted). Second, as noted, by proposing that a bottom wall is “integral” to the frame, Defendants effectively seek construction of the term “frame” as including a “bottom wall.” The term “frame,” in turn, appears in Claim 32 of the ‘252 Patent, and Defendants offer no reason why it should have one meaning in that claim and another in the disputed claims. *See, e.g., Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1328 (Fed. Cir. 2006) (“[T]he same terms appearing in different claims in the same patent . . . should have the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims.” (citation and quotations omitted)). To *infringe* under the asserted claims, the frame of an accused device arguably must include compartments with bottom walls, because the asserted claims arguably use additional language to that effect; but this does not mean that the *definition* of “frame” in the asserted claims differs from the definition of “frame” in Claim 32 of the ‘252 Patent, and, as discussed, a bottom wall clearly is not part of the frame in Claim 32.

(See ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A.) As the specifications explain, Figure 2A “illustrates an alternate embodiment frame **190** wherein each bay includes a top open end **192** and a bottom open end **193**, and at least one central sidewall opening **194**.” (‘648 Patent col. 6 ll. 8–10 (emphasis added); ‘252 Patent col. 7 ll. 22–24 (emphasis added); ‘218 Patent col. 7 ll. 24–26 (emphasis added); *see also* ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A.) The description associated with Figure 2A clarifies that the frame does not include a bottom wall, but instead that “[e]ach bay includes one or two detents **160** (or **140**) adjacent the open ends **192**, **193**,” and “[a] battery can be ejected through either the top open end or the bottom open end.” (‘648 Patent col. 6 ll. 11–13; ‘252 Patent col. 7 ll. 25–27; ‘218 Patent col. 7 ll. 27–29; *see also* ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A.) And “the frame **190** is also configured to be [a] mirror image identical across a horizontal plane that contains the centerline **50**, **52**.” (‘648 Patent col. 6 ll. 13–16; ‘252 Patent col. 7 ll. 27–30; ‘218 Patent col. 7 ll. 29–32; *see also* ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A.) If a bottom wall were “[a]n integral portion of the frame,” as Defendants propose, the “alternate embodiment frame” in Figure 2A, with its “top open end” and “bottom open end,” would be incompatible with the claims, *all* of which include a frame. Although courts “should not infer that any particular embodiment is included in a claim when there is probative evidence that sufficiently indicates the contrary,” *SIMO Holdings*, 983 F.3d at 1378, Defendants offer no such evidence here. Rather, their proposed construction “would improperly read [the Figure 2A] embodiment out of the patent.” *See Knowles*, 886 F.3d at 1375 (citation omitted).⁶

⁶ Defendants inexplicably argue that “Fig. 2A includes [a] ‘bottom wall.’” (Def. Reply, Dkt. 42, at 15.) Defendants fail to reconcile this assertion with the depiction in Figure 2A or the language that, in Figure 2A, “[a] battery can be ejected through either the top open end or the bottom open end.” (‘648 Patent col. 6 ll. 11–13; ‘252 Patent col. 7 ll. 25–27; ‘218 Patent col. 7 ll. 27–29; *see also* ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A.)

Third, the “Summary of the Invention” section of all three patents says that “[i]f detents are used on both ends of the compartment, a battery held therein can be ejected through either top or bottom end.” (‘648 Patent col. 2 ll. 11–13; ‘252 Patent col. 2 ll. 16–18; ‘218 Patent col. 2 ll. 17–19.) If an embodiment exists where a battery “can be ejected through either top or bottom end,” there cannot be a bottom wall. Thus, for the summary section to be consistent with the claims, there must be a version of a frame that does not include a bottom wall. Because a frame can exist without a bottom wall, a bottom wall is not integral to a frame.

Defendants argue that Claim 12 of Patent ‘648 “states that the ‘first frame’ ‘comprises a bottom wall.’” (Def. Reply, Dkt. 42, at 12 (emphasis removed).) Claim 12, as noted, discloses a “first frame . . . including a plurality of compartments . . . each compris[ing] a bottom wall.” (‘648 Patent col. 9 ll. 29–34.) Similarly, Claim 1 of the ‘252 Patent describes “a first frame including a plurality of compartments, each compartment . . . having a bottom wall.” (‘252 Patent col. 12 ll. 58–60.) Claim 1 of the ‘218 Patent likewise discloses “a first frame including a plurality of compartments . . . wherein said compartments each comprise . . . a bottom wall.” (‘218 Patent col. 12 ll. 53–65.)

But even accepting Defendants’ position that these claims “state[] that the ‘first frame’ ‘comprises a bottom wall’” (Def. Reply, Dkt. 42, at 12), that language, if anything, further supports the notion that a frame does not *inherently* comprise a bottom wall, and, accordingly, that a bottom wall is not “integral” to a frame. That is, if a frame necessarily comprises a bottom wall, the additional language in the asserted claims would be superfluous. *See Bicon*, 441 F.3d at 950 (“[C]laims are interpreted with an eye toward giving effect to all terms in the claim.” (collecting cases)). Accepting Defendants’ construction, the claims would effectively say: “the first frame, to which a bottom wall is integral, comprises (or has) a bottom wall.” In other words, “a structure

with a bottom wall (the frame) comprises a bottom wall.” Clearly, the asserted claims would not “state[] that the ‘first frame’ ‘comprises a bottom wall’” (Def. Reply, Dkt. 42, at 12), if a frame, by definition, comprises a bottom wall. *Cf. Enthone*, 2016 WL 6679493, at *4 (rejecting a proposed construction as superfluous, because adopting it would result in the disputed claim effectively disclosing “*a compound comprising a combination of [various chemical properties]*” comprising a combination of [those chemical properties]” (citation omitted)).⁷

Comparing Claim 12 of the ‘648 Patent with Claim 1 of the ‘648 Patent further undermines Defendants’ conclusion that a bottom wall is “integral” to the frame. By “stating” that the first frame disclosed in Claim 12 comprises a bottom wall, but omitting that limitation from Claim 1, Patent ‘648 shows that the patents affirmatively specify when a frame necessarily includes a bottom wall. If a bottom wall were “integral” to a frame, its inclusion in Claim 12 and simultaneous omission from Claim 1 would make little sense. That Claim 12 imposes *additional* limitations on the frame shows that these limitations do not inhere in the terms “frame” or “bottom wall.” *See Phillips*, 415 F.3d at 1314 (“Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.” (citation omitted)). *Cf. Digital-Vending*, 672 F.3d at 1274 (declining to limit the term “registration server” to a server “free of content managed by the architecture,” even though “[m]any of the asserted claims specifically require[d]

⁷ *Cf. also Digital-Vending*, 672 F.3d at 1274 (reversing the district court’s redundant construction of the term “registration server” as a server “free of content managed by the architecture,” because the claim already described a “registration server” as “being further characterized in that it is free of content managed by the architecture”); *Verizon*, 503 F.3d at 1304 (“The fact that [certain] functions are mentioned separately when a ‘server’ is mentioned in the claims weighs against limiting a ‘server’ to one that performs the functions.”); *Phillips*, 415 F.3d at 1314 (“To take a simple example, the claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.” (citation omitted)); *Twilio, Inc. v. Telesign Corp.*, No. 16-CV-6925 (LHK), 2017 WL 4573371, at *18 (N.D. Cal. Oct. 13, 2017 (rejecting a proposed construction as “unnecessary, as [it was] already captured in the specific steps recited in the claims”).

the registration server to be free of content managed by the architecture,” because “other asserted claims merely require[d] a registration server, without stating this additional limitation”).⁸

Defendants next argue that their proposed construction is necessary to avoid overbreadth because, if a bottom wall is not integral to the frame, it could be “any external structure at the end of a compartment such as a table top or even a user’s hand, or even something attached to the compartment.” (Def. Reply, Dkt. 42, at 16.) But the patents’ specifications and claims undermine Defendants’ position. The claims that reference a bottom wall include it as part of the device, not an external structure such as a tabletop or a hand. Claim 12 of Patent ‘648, for example, specifies that the “first frame,” which can be “held and supported in a user’s hand,” includes compartments, which in turn “each comprise a bottom wall having an open area exposing a bottom portion of a battery within said compartment wherein a user can touch with a finger a bottom edge of the battery held in the compartment through the open area.” (‘648 Patent col. 9 ll. 34–38.) And every figure in which a bottom wall appears shows the bottom wall as a piece either molded with or connected to the rest of the invention. (See, e.g., *id.* figs. 1, 3, 12.) Thus, a bottom wall, when included, cannot be a tabletop or user’s hand, even though it is not integral to the frame.

⁸ Although Claim 1 discloses that the frame “includ[es] *an* open end and *a* detent protruding into said open end to overlie a portion of a battery held therein” (8:24–26 (emphasis added)), this is consistent with the device including a second open end—as opposed to a bottom wall—and another detent protruding into that end. See *01 Communique Lab’y, Inc. v. LogMeIn, Inc.*, 687 F.3d 1292, 1297 (Fed. Cir. 2012) (“As a general rule, the words ‘a’ or ‘an’ in a patent claim carry the meaning of ‘one or more.’” (citation omitted)). While there is an exception to this rule when “a patentee [] evince[s] a clear intent to limit ‘a’ or ‘an’ to ‘one,’” *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008), this exception does not apply here because, as noted, Figure 2A in the specifications of all three patents “discloses expressly that,” *01 Communique*, 687 F.3d at 1297, “[e]ach bay includes one *or two* detents [] adjacent the open *ends*” (‘648 Patent col. 6 ll. 11–13 (emphasis added); ‘252 Patent col. 7 ll. 25–27 (emphasis added); ‘218 Patent col. 7 ll. 27–29 (emphasis added); see also ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A).

Defendants also argue that the prosecution history suggests that the “bottom wall” is integral to the frame. (*See* Def. Supp., Dkt. 45, at 3–4.) They point out that Plaintiff amended the applications for Patents ‘218 and ‘252 to include the “bottom wall” language in certain claims. But Plaintiff’s ultimate inclusion of the “bottom wall” term in some of the claims does not mean the bottom wall is inherently “integral” to the frame. It shows only that the claims to which the term was added feature a bottom wall as an additional element.⁹

B. The “Bottom Wall” Is Intended to Prevent Batteries from Falling Out

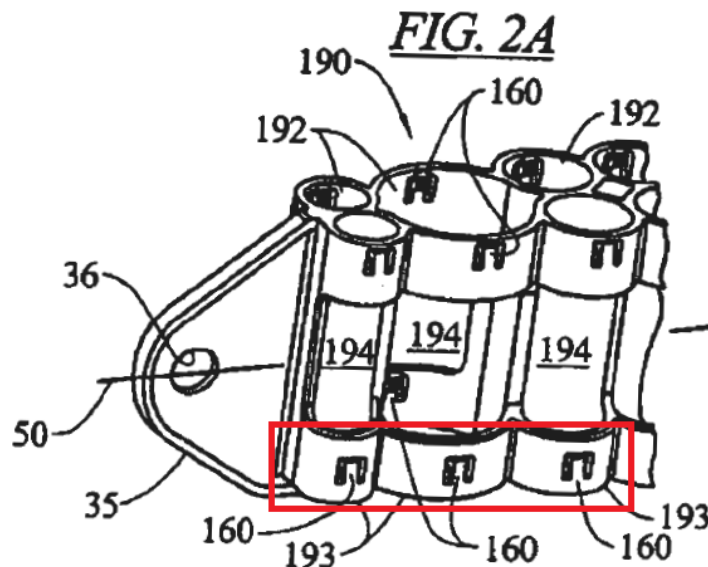
Although the Court disagrees with Defendants that a bottom wall is integral to the frame, the Court agrees with Defendants that the bottom wall, when included, is intended “to prevent batteries in the plurality of compartments from falling out.” (*See* Disputed Terms Chart, Dkt. 36-1, at 2, 5, 10.) Although “[a]n invention claimed in purely structural terms generally resists

⁹ If Defendants’ point is that a device without a bottom wall does not infringe on certain patent claims that *further limit* the frame by *adding* a bottom wall, then Defendants have not put the right terms in issue. They do not contest, for example, what Claim 12 of the ‘648 Patent means when it discloses a “first frame . . . *including* a plurality of compartments . . . each *compris[ing]* a bottom wall.” To determine whether Claim 12 covers a device with a frame lacking a bottom wall, one would need to discern the meaning of the language linking “frame” to “bottom wall” in Claim 12. Simply defining “bottom wall” or “frame” does not answer the question. But the parties have not asked the Court to construe the claims more broadly; rather, they have asked the Court to say what the *term* “bottom wall” means in the disputed claims.

If, alternatively, Defendants’ point is that the “bottom wall” referenced in the asserted claims cannot be detached from the frame when it is included, Defendants have not proposed such a construction nor made an argument to support it. In any event, the claims do not call for such a limitation. For example, the “Preferred Embodiments” section of all three patents describes an embodiment where “[t]he frame . . . is *preferably* a unitary molded piece” that “includes a bottom wall.” (‘648 Patent col. 4 ll. 64–67 (emphasis added); ‘252 Patent col. 5 ll. 14–17 (emphasis added); ‘218 Patent col. 5 ll. 16–19 (emphasis added)). This suggests that a frame does not *need* to be a unitary molded piece. *See, e.g., WesternGeco*, 889 F.3d at 1323–24 (“[C]laims are not limited to preferred embodiments” identified in the specification “unless the specification clearly indicates otherwise.” (citation omitted)); *cf. Halliburton*, 514 F.3d at 1251 (“[T]he specification states that ‘preferably’ none of these clays are added; this strongly suggests that absence of clays is simply a preferred embodiment.”).

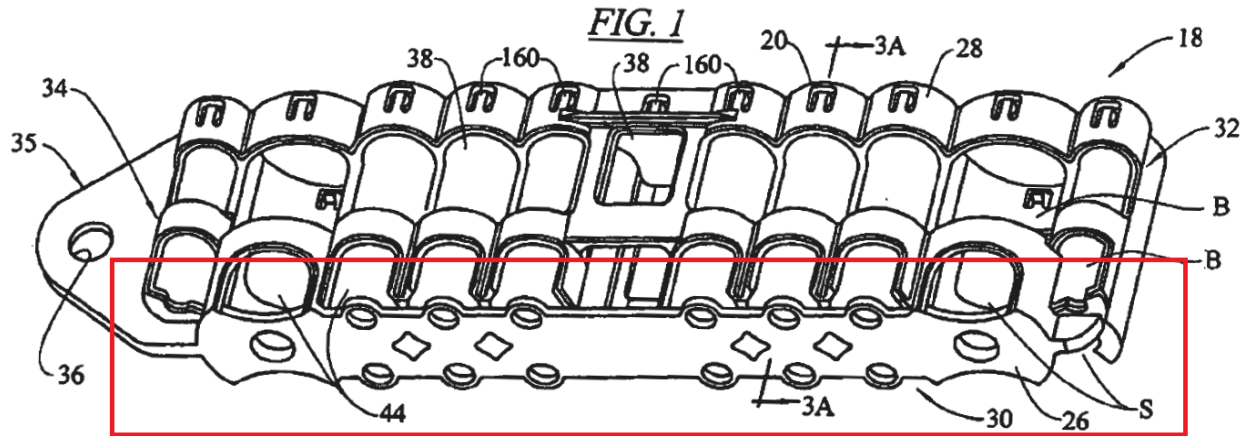
functional limitation,” *Toro Co. v. White Consol. Indus., Inc.*, 266 F.3d 1367, 1371 (Fed. Cir. 2001) (citation omitted), “it is entirely proper to consider the functions of an invention in seeking to determine the meaning of particular claim language,” *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1375 (Fed. Cir. 2009) (citation and quotations omitted). *Cf. Alaris*, 558 F.3d at 1375 (affirming the district court’s use of “functional language” in construction of the term “spike” as “an elongated structure having a pointed tip *for piercing the seal*” (emphasis added)).

Every time the claims or specifications in the three patents at issue here show an embodiment without a bottom wall, that embodiment includes a different mechanism to prevent batteries from falling through the bottoms of the compartments. For example, Figure 2A, which does not include a bottom wall, instead includes a second detent at the bottom of each compartment:



(‘648 Patent fig. 2A (red annotation added); ‘252 Patent fig. 2A (red annotation added); ‘218 Patent fig. 2A (red annotation added).) Similarly, the “Summary of the Invention” section of all three patents indicates that “detents [can be] used on both ends of the compartment” if there is no bottom wall. (‘648 Patent col. 2 ll. 11–13; ‘252 Patent col. 2 ll. 16–18; ‘218 Patent col. 2 ll. 17–19.)

By contrast, every image of the device that includes a bottom wall lacks a second detent or other mechanism to prevent batteries from falling through the bottoms of the compartments. For example, Figure 1 shows a bottom wall with no bottom detents:



(‘648 Patent fig. 1 (red annotation added); ‘252 Patent fig. 1 (red annotation added); ‘218 Patent fig. 1 (red annotation added).) This implies that a second detent—or other mechanism—is needed to retain batteries in compartments that lack a bottom wall. In turn, the embodiments that include bottom walls do not need bottom detents or other mechanisms because the bottom walls prevent batteries from falling through the bottoms of the compartments.

Plaintiff invokes the separate term, “protrusion into each compartment,” to dispute the notion that bottom walls are intended to prevent batteries from falling out. As Plaintiff points out, Claim 24 of the ‘252 Patent expressly provides that the protrusion into each compartment is intended “to retain a battery therein.” (Pl. Br., Dkt. 39, at 15.) According to Plaintiff, the use of this language with respect to the protrusion, and its omission from the references to bottom walls, shows that bottom walls are not inherently intended to retain batteries within compartments. (*See id.*)

But Plaintiff’s argument supports the opposite conclusion. The purpose of construing “bottom wall” is to clarify what the term means in context, not to simply reiterate the surrounding

claim language. As discussed, the patents and specifications show that a bottom wall is designed to prevent batteries from falling through the bottoms of compartments. That purpose is implicit in the term given the context. Although the claims do not expressly *add* that a bottom wall is intended to retain batteries within the compartments, the claims imply that purpose whenever they use the term “bottom wall.” By contrast, Claim 24 of the ‘252 Patent says that a “protrusion into each compartment” is intended to “retain a battery therein,” because the protrusion does not inherently serve that function. *Cf. Phillips*, 415 F.3d at 1314 (“To take a simple example, the claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.” (citation omitted)). As discussed below, a protrusion is not *by definition* intended to retain batteries, because then Claim 24 would not have added that the protrusion serves that purpose.

Ultimately, although a specification’s description of “only a single embodiment” does not mean “the claims of the patent *must* be construed as being limited to that embodiment,” *Cont’l Cirs. LLC v. Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir. 2019) (emphasis added) (citation omitted), *cert. denied*, 140 S. Ct. 648 (2019), the interplay of claims, descriptions, and figures in the three patents here reflects that a bottom wall is intended to prevent batteries from falling through the bottoms of the compartments. *Cf. C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 865 (Fed. Cir. 2004) (noting that although “a patent claim term is not limited *merely* because the embodiments in the specification all contain a particular feature,” a “patentee’s choice of embodiments can shed light on the intended scope of the claim” (citation omitted)); *Honeywell Int’l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) (finding that a claimed “fuel injection system component” was limited to a “fuel filter” because every reference in the written description specified a fuel filter); *Nystrom v. TREX Co.*, 424 F.3d 1136, 1145 (Fed. Cir. 2005)

(finding that the term “board” referenced a “wooden” board because the specification “consistently used the term ‘board’ to refer to wood cut from a log” (citation omitted)).

Finally, Plaintiff’s proposed construction rightly includes that the bottom wall “at least partially clos[es] the bottom end of the compartment.” (*See* Disputed Terms Chart, Dkt. 36-1, at 2, 5, 10.) Defendants offer similar language that the bottom wall is “positioned to close at least partially, the bottom ends of a plurality of the cylindrical battery compartments.” (*Id.*) This language accurately reflects the claims, specification, and images.

C. Construction of “Bottom Wall”

In light of the claim language and the additional evidence, the Court concludes that the meaning of the term “bottom wall,” “to the ordinary artisan after reading the entire patent,” *Eon*, 815 F.3d at 1320 (citations and quotations omitted), is as follows: A rigid structure at the bottom end of a battery compartment at least partially closing the bottom end of the compartment to prevent a battery from falling through the bottom end of the compartment.

II. “Protrusion into Each Compartment”

The parties next dispute the meaning of the term “protrusion into each compartment” as it appears in Claim 24 of the ‘252 Patent. (*See* Disputed Terms Chart, Dkt. 36-1, at 7.)

- Plaintiff recommends that the Court construe the term to mean “[a] structure that protrudes into a compartment to retain a battery within the compartment.” (*Id.*)
- Defendants recommend that the Court construe the term to mean “[a] bump extending into the compartment from a compartment sidewall resiliently compressible to grip a battery, or resilient compartment walls, to releasably retain a battery within the compartment.” (*Id.*)

A. The “Protrusion” Is Not Limited to the Structures Defendants Propose

Claim 24 in the ‘252 Patent says that “the first frame . . . ha[s] a protrusion into each compartment to retain a battery therein.” (‘252 Patent col. 14 ll. 43–45.) Dependent Claim 26 of Patent ‘252 describes “[t]he combination according to [C]laim 24, wherein each protrusion

comprises a detent protruding into the top opening of said compartment, said detent resiliently displaceable from said top opening to allow removal of said battery from said compartments through said top opening.” (*Id.* col. 14 ll. 49–53.)

Given the language of Claim 26, the “protrusion into each compartment” clearly can be a detent. The specification also distinguishes “detents” from “bumps,” noting that, “[a]s an alternate to detents, bumps extending into the compartment . . . can be used to releasably retain a battery within the frame.” (*Id.* col. 2 ll. 18–23, col. 7 ll. 31–36.) The Court therefore rejects Defendants’ proposal to limit the definition of “protrusion” to “[a] *bump* extending into the compartment.” (*See* Disputed Terms Chart, Dkt. 36-1, at 7 (emphasis added).) In fact, despite maintaining that “[t]he specification precludes ‘protrusion’ to mean a detent” (Def. Supp., Dkt. 45, at 10), Defendants concede in their Reply that, “[i]f the word ‘structure’ on [sic] Plaintiff’s proposed construction were replaced by ‘a detent *or* bump’, the proposed claim construction would be acceptable” (Def. Reply, Dkt. 42, at 21 (emphasis added)).

Ultimately, Defendants appear more concerned that Plaintiff’s proposed construction of “protrusion” would allow for “a detent at each end of each compartment and no ‘bottom wall.’” (Def. Supp., Dkt. 45, at 8.) Defendants again contend that the patents do not encompass an embodiment “in which there is no bottom wall and batteries are held in compartments with a detent above and below the batteries.” (*Id.* at 10.) But this argument does not pertain to the construction of “protrusion into each compartment.”

Further, contrary to Defendants’ assertion, the patents *do* allow for an embodiment “in which there is no bottom wall and batteries are held in compartments with a detent above and below the batteries.” (*Id.*) Figure 2A, as noted, depicts just such an embodiment—*i.e.*, a compartment with no bottom wall, that instead includes two detents, one at each open end of the

compartment. (See ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A.) The specifications for each patent clarify that Figure 2A represents an embodiment where “[e]ach bay includes one *or two* detents [] adjacent the open ends,” and “[a] battery can be ejected through either the top open end or the bottom open end.” (‘648 Patent col. 6 ll. 11–13; ‘252 Patent col. 7 ll. 25–27; ‘218 Patent col. 7 ll. 27–29; *see also* ‘648 Patent fig. 2A; ‘252 Patent fig. 2A; ‘218 Patent fig. 2A.) And, as discussed, the Summary of the Invention section of each patent says that “[i]f detents are used on both ends of the compartment, a battery held therein can be ejected through either top or bottom end.” (‘648 Patent col. 2 ll. 11–13; ‘252 Patent col. 2 ll. 16–18; ‘218 Patent col. 2 ll. 17–19.) This clearly contemplates an embodiment “with a detent above and below the batteries.” (Def. Supp., Dkt. 45, at 10.)

Finally, because the limitation that “each protrusion comprises a detent” appears only in the dependent Claim 26, and not in the independent Claim 24, a protrusion presumably also can be a structure other than a detent. Otherwise, Claim 26 would be superfluous of Claim 24. That is, there would be no reason for Claim 26 to describe a version of the protrusion that “comprises a detent” if a “protrusion” as described in Claim 24 were already limited to “a detent.” *Cf. Comark*, 156 F.3d at 1187 (rejecting a proposed construction that “would render claim 2 completely superfluous and redundant of claim 1”). And Patent ‘252’s specification indicates that, “[a]s an alternate to detents, bumps extending into the compartment from an inside surface of the compartment sidewalls, or ribs, or a soft liner portion within each compartment that is resiliently compressible to grip a battery held therein or resilient compartment walls, can be used to releasably retain a battery within the frame.” (‘252 Patent col. 2 ll. 18–23, col. 7 ll. 31–36.) Although the specification does not use the word “protrusion,” this description suggests that there are additional alternate forms of the protrusion referenced in Claims 24 and 26. The Court thus rejects

Defendants’ request to limit “protrusion into each compartment” to “[a] bump extending into the compartment from a compartment sidewall resiliently compressible to grip a battery, or resilient compartment walls, to releasably retain a battery within the compartment.” (Disputed Terms Chart, Dkt. 36-1, at 7.)

B. The “Protrusion” Is Not Limited to the Function Plaintiff Proposes

The Court also rejects Plaintiff’s proposed functional limitation that the protrusion inherently “retain a battery within the compartment.” As noted, Claim 24 in the ‘252 Patent says that the first frame “ha[s] a protrusion into each compartment to retain a battery therein.” (‘252 Patent col. 14 ll. 43–45.) Defining a “protrusion” as “[a] structure that protrudes into a compartment *to retain a battery within the compartment*” would render the qualification in Claim 24 superfluous. Plaintiff’s proposed functional limitation would effectively result in the following construction: “[T]he first frame . . . ha[s] a [structure that protrudes into a compartment to retain a battery within the compartment] to retain a battery therein.” (‘252 Patent col. 14 ll. 43–45 (Plaintiff’s proposed construction added in brackets)); *cf. Digital-Vending*, 672 F.3d at 1274 (reversing the district court’s redundant construction of the term “registration server” as a server “free of content managed by the architecture,” because the claim already described a “registration server” as “being further characterized in that it is free of content managed by the architecture”).

C. Construction of “Protrusion into Each Compartment”

The Court agrees with Defendants that the protrusion at issue inherently protrudes “from a compartment sidewall.” Every description and image in the specification reflects such a limitation, and it is implicit in the language of the claims. *See C.R. Bard*, 388 F.3d at 865 (noting that although “a patent claim term is not limited *merely* because the embodiments in the specification all contain a particular feature,” a “patentee’s choice of embodiments can shed light on the intended scope of the claim” (citation omitted)); *Honeywell*, 452 F.3d at 1318 (finding that a claimed “fuel injection

system component” was limited to a “fuel filter” because every reference in the written description specified a fuel filter); *Nystrom*, 424 F.3d at 1145 (finding that the term “board” referenced a wooden board because the specification “consistently used the term ‘board’ to refer to wood cut from a log” (citation omitted)). Thus, in light of the claim language and the specification, the Court concludes that the meaning of the term, “protrusion into each compartment,” “to the ordinary artisan after reading the entire patent,” *Eon*, 815 F.3d at 1320 (citations and quotations omitted), is as follows: A structure that protrudes from a compartment sidewall into a compartment.

CONCLUSION

Having reviewed the parties’ proposed constructions, the three patents, and the relevant extrinsic evidence, the Court construes the terms “bottom wall” and “protrusion into each compartment” as follows: (1) “bottom wall”: A rigid structure at the bottom end of a battery compartment at least partially closing the bottom end of the compartment to prevent a battery from falling through the bottom end of the compartment; (2) “protrusion into each compartment”: A structure that protrudes from a compartment sidewall into a compartment.

SO ORDERED.

/s/ Pamela K. Chen

Pamela K. Chen

United States District Judge

Dated: December 15, 2021
Brooklyn, New York